

the "Vertebrates" are dealt with under Chapters I.-VI., and the "Invertebrates" under Chapters VII.-XV.; Part II., the "Vegetable World," illustrated by many text-figures, extends to five chapters. In the "Introduction" there are suggestions as to the necessary apparatus for the naturalist; the "Appendix" is headed "Some wild pets I have known"—five in all. The Insects occupy pp. 181-299, illustrated by 11 plates, 3 of which are printed in colours. The representative figures of the beetles, 233 in number, occupying 4 plates, photographed natural size, are poor; those of the butterflies and moths fairly good. But if a specialist starts to analyse the text—say, the article headed "Some common British Beetles"—he will find here and there cause for criticism. In the list of the families the Buprestidæ are omitted altogether, the Nitidulidæ consist of a mixture of various Clavicornes, *Blethisa* is wrongly placed under the tiger-beetles (Cicindelidæ) and *Deronectes* under the whirligig-beetles (Gyrinidæ), and so on. Nevertheless, a beginner will find much to help him in naming his captures. Works on special subjects would, of course, be required by the collector when more accurate detail is required. The book is well printed and indexed, and the price at the present time is not high.

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

March 8th, 1922.—Mr. R. D. Oldham, F.R.S.,
Vice-President, in the Chair.

Dr. A. SMITH WOODWARD described certain photographs (natural size) of *Desmostylus* teeth from the Lower Miocene Sandstone of Southern Vancouver Island (B.C.) exhibited by IRA E. CORNWALL, F.G.S.

The exhibitor wrote that these *Desmostylus* teeth are slightly different from any found in either California or Japan, as they show a well-developed cingulum. They may be from an older species than *Desmostylus hesperus*, as recent research has shown that the formation in which they were found is at least Lower Miocene, while the formation in which *Desmostylus* remains have been found in California is Middle Miocene.

One of the teeth shown in the photographs was found in 1916 in the face of the sandstone-cliff west of Muir Creek, Sooke Bay, Southern Vancouver Island (B.C.). It was determined by the late Lawrence M. Lambe as the first right upper molar of *Desmostylus hesperus* Marsh, and is now in the British Columbia Provincial Museum at Victoria. The dimensions of this tooth are: Length = 34 mm.; width = 24 mm.; height of columns

= 17 mm.; diameter of the largest column = 15 mm.; diameter of small column = 10 mm. This tooth is considerably worn. The second tooth was found in the same locality last year by the Rev. Robert Connell. Its dimensions are: length = 17 mm.; width = 34 mm.; diameter of the largest column = 24 mm.; diameter of the smallest column = 17 mm.

The following communication was read:—

‘On the Geological Importance of the Primitive Reptilian Fauna in the Upper Cretaceous of Hungary.’ By Baron Francis Nopcsa, For. Corresp. G.S.

The Upper Cretaceous of Eastern Hungary can be divided into two horizons, with an unconformity between them. The lower niveau comprises the Cenomanian, Turonian, and Lower Senonian strata, the upper one the uppermost Senonian and the Danian formation.

While the entire lower horizon and the Upper Senonian rocks are of marine origin, the Danian is a freshwater deposit that passes downwards by means of brackish-water beds gradually into the marine strata.

The age of these marine deposits has been well established by different fossils (mostly ammonites); the age of the remarkably-thick freshwater beds is partly determined by their position between the older Maastrichtian and the younger Middle Eocene strata, partly by rolled material containing fossils.

The vertebrate fauna of the freshwater beds has, despite its Upper Cretaceous age, a strikingly Jurassic aspect, for one finds primitive tortoises (among them a new genus) related to *Pleurosternum*, a Camptosaurian Dinosaur (*Rhynchodon*), a remarkably primitive Trachodon (*Orthomerus*), a Sauropodous Dinosaur (*Titanosaurus*) that is generically identical with a Wealden type, an armoured Dinosaur (*Struthiosaurus*) showing still a condyle directed downwards, and a Pterosaurian related to the Wealden *Ornithodesmus*.

The survival of this fauna is explained by the fact that, during the whole of the Cretaceous Period, it was isolated. This isolation brought about a dwarfing of the larger animals (Dinosaurs) but did not affect the smaller forms (crocodiles and tortoises).

In consequence of a general uplift at the dawn of the Eocene and the cooling of the climate, nearly the whole of this fauna became extinct, the different changes brought about by these two factors acting differently upon the different members of the fauna.

The terrestrial Dinosaurs were compelled to give place to the more agile mammals, the herbivorous Dinosaurs of the marshy tracts suffered from the change of the flora, while the warm-blooded Pterosaurians became extinct, on account of the cooling of the climate.

In contrast to this change, those crocodiles which were adapted to a warm-blooded diet survived until the Miocene Period, and only retired to the tropics when the climate became so cold that the palms vanished out of Europe.

April 12th, 1922.—Prof. A. C. Seward, Sc.D., F.R.S., President, and afterwards Dr. H. H. Thomas, V.P.G.S., in the Chair.

The following communication was read:—

‘Oligocene Mosquitoes in the British Museum, with a Summary of our present Knowledge concerning Fossil Culicidæ.’
By F. W. Edwards, B.A. (Communicated by the Secretary.)

The material dealt with in this paper is in part the property of the Geological Department of the British Museum, and in part belongs to Mr. R. W. Hooley, F.G.S. The study of it was undertaken by the Author at the suggestion of Prof. T. D. A. Cockerell, and by permission of the Keeper of the Department. All the specimens are from the Oligocene of the Isle of Wight.

The result of the study confirms what was already known of the Oligocene Insect-fauna. The genera appear to be inseparable from those living at the present day, and the indications supplied by some of the species suggest a fauna similar to that of the Ethiopian and Oriental regions at the present day.

No light is thrown by the fossils on the phylogenetic history of the Culicidæ, nearly all the recent types being represented in the Oligocene fauna, and no peculiar forms occurring. The genus *Anopheles*, however, has not been found, probably because of its comparative rarity.

The three species described from the Oligocene of the Isle of Wight by Prof. Cockerell are discussed in detail, and are referred to the genus *Aedes* in the broad sense. Two new species, one of *Culex* and one of *Teniorhynchus*, are described.

A critical summary is given of our present knowledge of fossil Culicidæ. No fossil that can be positively referred to this family is yet known from the Mesozoic.

MISCELLANEOUS.

A Correction. By Lord ROTHSCHILD, F.R.S.

IN my article in the May number of this Magazine on the Aretiinæ of Pará, I described a new species under the name of *Robinsonia mossi* on page 486, quite overlooking the fact that I had already given this name to another species on page 458. I therefore rename the species on page 486 *Robinsonia milesi*.